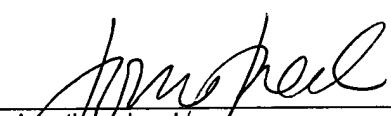
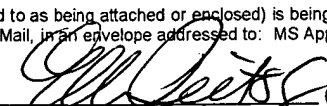
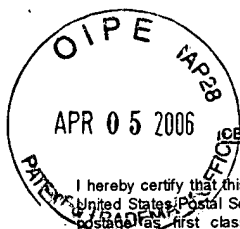



AF 1214318

TRANSMITTAL OF APPEAL BRIEF			Docket No. 70013-00021-US
In re Application of: Gary S. Shuster			
Application No. 09/932431	Filing Date August 17, 2001	Examiner Asghar H. Bilgrami	Group Art Unit 2143
Invention: METHOD AND APPARATUS FOR IMPROVING BANDWIDTH EFFICIENCY IN A COMPUTER NETWORK			
<p style="text-align: center;"><u>TO THE COMMISSIONER OF PATENTS:</u></p> <p>Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed: <u>December 5, 2005</u>.</p> <p>The fee for filing this Appeal Brief is <u>\$ 250.00</u>.</p> <p><input type="checkbox"/> Large Entity <input checked="" type="checkbox"/> Small Entity</p> <p><input checked="" type="checkbox"/> A petition for extension of time is also enclosed.</p> <p>The fee for the extension of time is <u>\$ 225.00</u>.</p> <p><input type="checkbox"/> A check in the amount of _____ is enclosed.</p> <p><input checked="" type="checkbox"/> Charge the amount of the fee to Deposit Account No. <u>50-3683</u>. This sheet is submitted in duplicate.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees that may be required or credit any overpayment to Deposit Account No. <u>50-3683</u>. This sheet is submitted in duplicate.</p> <div style="display: flex; justify-content: space-between;"><div><p> Jonathan Jaech Attorney Reg. No.: 41,091 CONNOLLY BOVE LODGE & HUTZ LLP Wells Fargo Center South Tower, Suite 3150 Los Angeles, California 90071-1560 (213) 787-2500</p></div><div><p>Dated: <u>April 3, 2006</u></p><p>CUSTOMER NUMBER</p><p>58688 PATENT TRADEMARK OFFICE</p></div></div>			
<p>I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: MS Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.</p> <p>Dated: <u>4/3/2006</u> Signature:  (Ellen I. Pritsker)</p>			



I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Date: April 3, 2006


Ellen Pritsker

PATENT
70013.00021 (409475-40)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: GARY SHUSTER

Serial No.: 09/932,431

Filed: August 17, 2001

Title: METHOD AND APPARATUS FOR
IMPROVING BANDWIDTH EFFICIENCY IN A
COMPUTER NETWORK

Art Unit: 2143

Examiner: Asghar H. Bilgrami

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir or Madam:

The appellant filed a Notice of Appeal in the above-identified application on 5 December 2005 under 35 U.S.C. § 134(a), and submits this Appeal Brief under 37 CFR 1.192 ("Rule 192"). The appellant respectfully submits that this Appeal Brief is timely filed under 37 CFR 1.191, the time for filing having been extended by two months to April 5, 2006 by the accompanying Petition for Extension of Time, and the Appeal

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Brief meets the substantive requirements of Rule 192. The appellant requests entry, consideration, and favorable action on this appeal at the Office's earliest convenience.

In accordance with Rule 1.192(c), the appellant presents the following items under the headings prescribed therein.

Real Party in Interest

Ideaflow, Inc., a Nevada corporation, owns the subject application.

Related Appeals and Interferences

Neither the assignee nor the appellant are aware of any other appeals or interferences that would bear on the Board's decision in this appeal.

Status of Claims

On December 5, 2005, the appellant filed a Notice of Appeal from the final rejections of pending Claims 21-36 as stated in the Official Action mailed on June 3, 2005 (hereinafter the "Final Action"). Claims 1-20 were previously cancelled. All of Claims 21-36 have been finally rejected.

Status of Amendments

An after-final amendment was submitted by appellant on December 5, 2005, and has been entered as noted in the Advisory Action mailed December 28, 2005. No amendments have been denied entry.

Summary of Invention

The invention is directed to a system and method for operating a server group to improve bandwidth efficiency in a computer network. The computer network includes a

the server group operable to transmit files between the server group and destinations on the computer network through a communication link having a finite bandwidth. Prior-art methods for managing bandwidth created a bottleneck at the gateway point for network traffic. The invention solves this problem by monitoring bandwidth usage **downstream** at a common communication link, and implementing traffic control measures **upstream** at the data source, using **two separate applications** in communication with each other. The method as defined by claim 21 comprises the particular steps of:

A. Monitoring bandwidth usage of a communication link for connecting a server group to a wide area network, using software operably associated with the communication link. Page 4, lines 9-11; page 7, lines 3-5; page 8, lines 13-17; page 10, lines 3-7.

B. Distributing a rule set to individual servers of the server group, wherein the rule set defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage. Page 5, lines 10-13; page 10, lines 15-17.

C. Characterizing files stored in operable association with the individual servers according to type, using software operating on the individual servers. Page 5, lines 5-10; page 10, line 26 – page 11, line 17.

D. Informing the individual servers of the current state of the bandwidth usage as monitored by the software operably associated with the communication link. Page 10, lines 15-17.

E. Serving the files from the individual servers to the wide area network via the communication link in compliance with the rule set, so as to limit serving of specified file types from the servers during periods when the bandwidth usage exceeds a threshold amount relative to a finite bandwidth of the communication link. Page 8, lines 9-12; page 10, lines 15-17.

Claim 29 defines essentially the same subject matter as claim 21, but in system form.

As further defined by Claims 24 and 32, "crawling through a memory operably associated with the individual server to identify associated groups of files, wherein each of the groups of files is configured to be aggregated into a larger file." Page 9, lines 19-25; page 10, line 26 – page 11, line 6.

As further defined by Claims 25 and 33, "crawling through files stored in a storage device operably associated with the individual server to identify files that do not contain hyperlinks and are not identified by hyperlinks in other files stored by the storage device." Page 11, lines 9-15.

As further defined by Claims 27 and 35, "distributing a replacement rule set to individual servers of the server group when the current state of the bandwidth usage

changes by more than a specified amount, wherein the replacement rule set replaces the rule set and defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage.” Page 5, lines 14-19; page 10, lines 3-19.

The remaining claims are not separately discussed herein. For a summary of the grouping of the claims for the purpose of this appeal, see the section titled “Grouping of the Claims” herein below.

Grouping of Claims

The appellants group the rejected claims as follows:

Group I: Claims 21-23, 26, 28-31, 34 and 36;

Group II: Claims 24 and 32;

Group III: Claim 25 and 33;

Group IV: Claims 27 and 35.

The claims within each of the above groups stand or fall together with respect to the pending rejections. In addition, the claims of Groups II – IV respectively stand, but do not fall, together with the claims for Group I. If the claims were to be rejected on grounds other than presently pending, the above groupings may not apply. In the arguments below, the appellants present reasons why each group of claims is separately patentable over the cited references.

Issues

The appellants address the following issues in the arguments presented below with respect to each group of claims identified above:

1. Whether the claims in Group I are patentable under 35 U.S.C. § 102(e) over Rakoshitz (U.S. Pat. No. 6,578,077).
2. Whether the claims in Group II are patentable under 35 U.S.C. § 102(e) over Rakoshitz.
3. Whether the claims in Group III are patentable under 35 U.S.C. § 102(e) over Rakoshitz.
4. Whether the claims in Group IV are patentable under 35 U.S.C. § 102(e) over Rakoshitz.

Argument

The Final Action rejected all of the pending claims based on anticipation. "Anticipation under 35 USC §102(e) requires that 'each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *In re Robertson*, 49 USPQ 1949, 1950 (Fed.Cir. 1999); *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). There must be no difference between the claimed invention and reference disclosure for an anticipation rejection under 35 U.S.C. §102. *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991). To properly anticipate a claim, the reference must teach every

element of the claim. See MPEP § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference". *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). In determining anticipation, no claim limitation may be ignored. The applied art of Rakoshitz does not meet this threshold burden.

A. Group I

The appellant respectfully submits that the § 102(e) rejections of the Group I claims as unpatentable over Rakoshitz are deficient. Rakoshitz fails to disclose, either expressly or inherently, several features recited in independent Claims 21 and 29 as required by MPEP § 2131 and legal precedents discussed above.

Rakoshitz discloses an invention for providing "network or firewall administrators with the ability to implement policy-based schema for security and resource management on firewall platforms." Col. 3, lines 63-66. Rakoshitz consistently discloses implementing traffic management tools at a gateway point to the Internet or other wide area network, as exemplified below:

- (a) [T]he present invention provides a single point or a single region to manage telecommunication traffic including directory services and bandwidth management. Additionally, in some, if not all embodiments, the present invention can be implemented at a single point of access such as a computer terminal or firewall" Col. 3, lines 17-23.

- (b) The present invention can be embodied as a TrafficWare™ firewall server 110 from Ukiah Software, Inc., but can be others. Col. 6, lines 3-5; Fig. 1.
- (c) The [bandwidth management] tool 405 is coupled between the ISP LAN and router 407, which is connected to the Internet 409. Col. 11, lines 11-13.
- (d) The present [bandwidth management] tool 505 is coupled between LAN 501 and router 507, which is connected to the Internet 509. Col. 11, lines 22-24.
- (e) A bandwidth management tool 605 is coupled between campus network 601 and router 607, which is coupled to Internet 609. Col. 11, lines 36-38.
- (f) Each connection or child includes a router 705A, E, D, C and the present [bandwidth management] tool 703A, E, D, C which is coupled between the router and the hub ("HQ"). Col. 11, lines 52-54.
- (g) In general, a flow of information or data or packets of information enter a gateway point, where the present tool sits. Col. 15, lines 58-60.
- (h) The bandwidth management tool is implemented as a tool coupled to a single application-programming interface (API). Col. 9, lines 18-23; Fig. 2.

At most, Rakoshitz discloses that the bandwidth management tool may be "deployed at any appropriate point in the network data path." Col. 9, lines 33-34. It is therefore limited to disclosing deploying the software only at a **single** point, generally a gateway point. Col. 15, lines 58-60. It does not disclose distributing different interoperable bandwidth management modules at different network locations. It fails to disclose, either expressly or inherently, the combination of steps defined by claim 21, namely:

monitoring bandwidth usage of a communication link for connecting a server group to a wide area network, using software operably associated with the communication link;

distributing a rule set to individual servers of the server group, wherein the rule set defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage;

characterizing files stored in operable association with the individual servers according to type, using software operating on the individual servers;

informing the individual servers of the current state of the bandwidth usage as monitored by the software operably associated with the communication link

These claims define first software “operably associated with the communication link” that performs a function of monitoring a current state of bandwidth usage, and second “software operating on the individual servers” that performs the function of characterizing files by type. These must be deployed as separate software, because the first is associated with a communication link for the entire software group, while the second operates on individual servers of the group. Therefore, the software cannot be deployed at a single point, as defined by claim 21. Rakoshitz does not disclose this configuration, disclosing instead a single tool deployed through a common API at a gateway point. See, e.g., col. 9, lines 18-23; Fig. 2.

Likewise, Rakoshitz does not disclose the step of “distributing a rule set to individual servers of a server group.” Again, disclosing only deployment of the tool at a single point, Rakoshitz does not disclose distributing a rule set to multiple servers based on bandwidth usage monitored at a common communication link for the group.

Essentially the same limitations are defined in claim 29, albeit in system form:

first program instructions operably associated with the communication link to perform the steps of (a) monitoring bandwidth usage of the communication link, (b) distributing a rule set to each of the plurality of servers, wherein the rule set defines rules for limiting serving of data from each of the plurality of servers depending on file type and a current state of the bandwidth usage, and (c) informing each of the plurality of servers of a current state of the bandwidth usage; and

second program instructions operably associated with each of the plurality of servers to perform the steps of (d) characterizing files stored in operable association with each of the plurality of servers according to type, and (e) serving the files from each of the plurality of servers to the wide area network via the communication link in compliance with the rule set, so as to limit serving of specified file types from the servers during periods when the bandwidth usage exceeds a threshold amount relative to a finite bandwidth of the communication link.

Thus, claim 29 clearly defines separate software operating on different system elements to different functions of bandwidth management. As noted above, Rakoshitz discloses performing all bandwidth management through a common API at a single gateway location. Rakoshitz fails to disclose, either expressly or inherently, the distribution of separate software elements as defined by claim 29.

Therefore, failing to disclose or suggest all the claimed elements of claims 21 and 29 and their respective dependent claims, Rakoshitz presents no bar to patentability of these claims under § 102.

B. Group II

In addition to being allowable as depending from one of allowable base claims 21 or 29, claims 24 and 32 are independently allowable. Rakoshitz fails to disclose all the limitations of these claims.

These claims define “crawling through a memory operably associated with the individual server to identify associated groups of files, wherein each of the groups of files is configured to be aggregated into a larger file.” Rakoshitz merely discloses classifying data by various criteria, including by file size. See, e.g., col. 15, line 57 – col. 16, line 10. However, the action of identifying associated groups of files configured to be aggregated into a larger file is neither disclosed by Rakoshitz, nor inherent in application of any of the various criteria for classifying data that Rakoshitz discloses. For example, the present application provides one example of this action in the identification of sequentially numbered files. Page 9, lines 25-27. Rokoshitz discloses nothing of this nature, nor does it even acknowledge the existence of files configured to be aggregated into larger files or any problems that such files can cause.

Rakoshitz further fails to disclose the action of “crawling through a memory associated with an individual server.” Instead, Rakoshitz teaches that the bandwidth management tool is used to analyze data flow as it passes through a gateway point. Col. 15, lines 57-61. As used in the specification and as would be understood in the art, “crawling” is distinct from analyzing data as it passes through a gateway. See Application at page 5, lines 9-10. Specifically, to “crawl” is to search a “file storage memory of a web server to classify files found there.” Page 10, lines 28-29. Rakoshitz does not teach crawling for bandwidth management, or for any purpose.

Therefore, failing to disclose or suggest all the claimed elements of claims 24 and 32, Rakoshitz presents no bar to patentability of these claims under § 102, for this additional reason.

C. Group III

In addition to being allowable as depending from one of allowable base claims 21 or 29, claims 25 and 33 are independently allowable because Rakoshitz fails to disclose all the limitations of these claims.

These claims define “crawling through files stored in a storage device operably associated with the individual server to identify files that do not contain hyperlinks and are not identified by hyperlinks in other files stored by the storage device.” As noted in connection with the Group III claims, Rakoshitz does not disclose the action of “crawling through files stored in a storage device.” Therefore, Rakoshitz cannot anticipate these claims.

In addition, Rakoshitz fails to disclose any action of specifically identifying files that do not contain hyperlinks and are not identified by hyperlinks in other files stored by the storage device. The application teaches that such unlinked data is likely to be low priority or illicit. Page 11, lines 9-15. Rakoshitz does not even recognize this problem, and does not disclose identifying unlinked files, for any reason. Indeed, the approach disclosed by Rakoshitz – analyzing data as it passes through a gateway – is plainly not

suited for the task of comparing relationships between files stored by a particular storage device.

Therefore, failing to disclose or suggest all the claimed elements of claims 25 and 33, Rakoshitz presents no bar to patentability of these claims under § 102, for this additional reason.

D. Group IV

In addition to being allowable as depending from one of allowable base claims 21 or 29, Claims 27 and 35 are independently allowable. These claims additionally define “distributing a replacement rule set to individual servers of the server group when the current state of the bandwidth usage changes by more than a specified amount, wherein the replacement rule set replaces the rule set and defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage.” Rakoshitz fails to disclose these limitations.

As noted with respect to the claims in Group I, Rakoshitz consistently discloses implementing traffic management tools at a gateway point to the Internet or other wide area network. That is, Rakoshitz discloses deploying the software only at a **single** point, generally a gateway point. Col. 15, lines 58-60. Therefore, Rakoshitz does not expressly or inherently disclose “distributing a replacement rule set to individual servers of the server group.” In the system disclosed by Rakoshitz, no such distribution can or need occur because the bandwidth management tool is implemented at a single

gateway point. Rakoshitz discloses that “[t]he tool can be deployed at any appropriate point in the network data path,” expressly limiting deployment to a single point. Rakoshitz nowhere discloses distributing a rule set to a plurality of individual servers in a server group.

Separating the bandwidth monitoring from the traffic management functions in the claimed fashion should provide the benefit of increasing system throughput. The bottleneck of managing traffic at a gateway point is removed, and traffic is managed upstream, at the individual server level. The replacement rule set “defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage.” The bandwidth usage may be communicated from a downstream monitoring point, such as at a gateway to the server group. Thus, these claims define a method and system in which monitoring and managing are separately performed, and the rule sets employed at the upstream servers are replaced as conditions change.

Therefore, failing to disclose or suggest all the claimed elements of claims 27 and 35, Rakoshitz presents no bar to patentability under 35 U.S.C. § 102.

Conclusion

Appellants respectfully request the reversal of the rejection of currently pending Claims 21-36, and allowance of these claims forthwith, for the reasons set forth above.


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Appendix

Appealed Claims 21-36 are attached hereto as Appendix A. Evidence for consideration in this appeal is attached hereto as Appendix B.

Respectfully submitted,

Date: March 28, 2006



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APPENDIX A
APPEALED CLAIMS

1-20. (Canceled)

21. (Previously presented) A method for operating a server group to improve bandwidth efficiency in a computer network, wherein the server group is operable to transmit files between the server group and destinations on the computer network through a communication link having a finite bandwidth, the method comprising:

monitoring bandwidth usage of a communication link for connecting a server group to a wide area network, using software operably associated with the communication link;

distributing a rule set to individual servers of the server group, wherein the rule set defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage;

characterizing files stored in operable association with the individual servers according to type, using software operating on the individual servers;

informing the individual servers of the current state of the bandwidth usage as monitored by the software operably associated with the communication link; and

serving the files from the individual servers to the wide area network via the communication link in compliance with the rule set, so as to limit serving of specified file types from the servers during periods when the bandwidth usage exceeds a threshold amount relative to a finite bandwidth of the communication link.

22. (Previously presented) The method of Claim 21, wherein the characterizing step further comprises assigning a type to each of the files based on a corresponding file name for each file.

23. (Previously presented) The method of Claim 22, wherein the characterizing step further comprises characterizing a type of each of the files based on a corresponding file name extension for each file.

24. (Previously presented) The method of Claim 21, wherein the characterizing step further comprises crawling through a memory operably associated with the individual server to identify associated groups of files, wherein each of the groups of files is configured to be aggregated into a larger file.

25. (Previously presented) The method of Claim 21, wherein the characterizing step further comprises crawling through files stored in a storage device operably associated with the individual server to identify files that do not contain hyperlinks and are not identified by hyperlinks in other files stored by the storage device.

26. (Previously presented) The method of Claim 21, wherein the serving step further comprises selecting a rule from the rule set according to the current state of the bandwidth usage.

27. (Previously presented) The method of Claim 21, further comprising distributing a replacement rule set to individual servers of the server group when the current state of the bandwidth usage changes by more than a specified amount, wherein the replacement rule set replaces the rule set and defines rules for limiting serving of data from the individual servers depending on file type and a current state of the bandwidth usage.

28. (Previously presented) The method of Claim 21, further comprising repeating the informing step at periodic intervals.

29. (Previously presented) A system for operating a plurality of servers to improve bandwidth efficiency in a computer network, the system comprising:

a plurality of servers operable to connect to a computer network through a communication link having a finite bandwidth; and

first program instructions operably associated with the communication link to perform the steps of (a) monitoring bandwidth usage of the communication link, (b) distributing a rule set to each of the plurality of servers, wherein the rule set defines rules for limiting serving of data from each of the plurality of servers depending on file type and a current state of the bandwidth usage, and (c) informing each of the plurality of servers of a current state of the bandwidth usage; and

second program instructions operably associated with each of the plurality of servers to perform the steps of (d) characterizing files stored in operable association with each of the plurality of servers according to type, and (e) serving the files from each of the plurality of servers to the wide area network via the communication link in compliance with the rule set, so as to limit serving of specified file types from the servers during periods when the bandwidth usage exceeds a threshold amount relative to a finite bandwidth of the communication link.

30. (Previously presented) The system of Claim 29, wherein the second program instructions are further operable to perform the characterizing step by characterizing a type of each of the files based on a corresponding file name extension for each file.

31. (Previously presented) The system of Claim 30, wherein the second program instructions are further operable to perform the characterizing step by characterizing a type of each of the files according to a corresponding file name extension for each file.

32. (Previously presented) The system of Claim 29, wherein the second program instructions are further operable to perform the characterizing step by crawling through a storage device operably associated with the server to identify associated groups of files, wherein each of the groups of files is configured to be aggregated into a larger file.

33. (Previously presented) The system of Claim 29, wherein the second program instructions are further operable to perform the characterizing step by crawling through files stored in a storage device operably associated with the server to identify files that do not contain hyperlinks and are not identified by hyperlinks in other files of the storage device.

34. (Previously presented) The system of Claim 29, wherein the second program instructions are further operable to perform the serving step by selecting a rule from the rule set according to the current state of the bandwidth usage.

35. (Previously presented) The system of Claim 29, wherein the first program instructions are further operable to distribute a replacement rule set to each of the plurality of servers when the current state of the bandwidth usage changes by more than a specified amount, wherein the replacement rule set replaces the rule set and defines rules for limiting serving of data from each of the plurality of servers depending on file type and a current state of the bandwidth usage.

36. (Previously presented) The system of Claim 29, wherein the first program instructions further operable to repeat the informing step at periodic intervals.

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APPENDIX B
EVIDENCE

NONE.